

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1 and 9-19 are currently being amended.

Claims 20 and 21 are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-21 are now pending in this application.

The drawings are objected to for certain informalities. Applicant is submitting a replacement drawing sheet including a corrected Figure 4. The block 440 has been amended as suggested by the Examiner.

The specification is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action objects to the sentence on page 8 “the protocol can include a protocol that is not compliant with HTTP.” The Examiner asserts that “the protocol” is ambiguous and lacks the information that whether “the protocol” can still communicate with HTTP. Applicant respectfully disagrees for the following reason.

In certain embodiments of the invention, information sent between the client and the CGI may be compliant with HTTP. In other embodiments, the information may be compliant with another protocol. As noted in the description of Figure 2, in a particular embodiment, “the information sent or received by the CGI is compliant with a protocol other than HTTP.” Spec.,

p. 7, lines 2-3. Thus, “the protocol” is not ambiguous, and the rejection of the specification should be withdrawn.

Claims 3, 5, 11 and 13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Office Action asserts that a “missing ‘include’ in these claims make them differentiate form the one mentioned in P.8, l. 29.” Applicant respectfully notes that the language in the claims cited by the Examiner is identical to the language in the specification at p. 7, lines 2-3. Further, even with a missing “include” in the claims, the scope of the claims is clear to those with skill in the art. Accordingly, Applicant respectfully request withdrawal of the rejected under 35 U.S.C. § 112.

Claims 1-14 and 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,604,125 to Belkin (hereinafter “Belkin”). Applicant respectfully traverses the rejection for the following reasons.

Embodiments of the present invention relate to systems and methods for two-way asynchronous communication between a client and a web server. The communication may occur through a firewall. According to the disclosed embodiments, communication may be established by opening a socket connection, and a CGI is initialized and executed. The CGI allows continuous, two-way asynchronous communication between the client and the server. The CGI remains active until terminated. As described in the specification and the figures, the termination may be caused by either the CGI (when the requested process is completed) or by the client (through a termination request). Thus, the systems and methods according to the present invention allow a client to maintain continuous two-way asynchronous communication. As noted in the specification, “the CGI will continue until notified by the client.” Accordingly, independent claim 1 recites “executing operations associated with the CGI, wherein the operations are configured to perform the two-way asynchronous communication with the client until terminated by the client.” Independent claim 9 recites a similar feature.

In contrast, Belkin fails to teach or suggest at least this feature of claims 1 and 9. Specifically, Belkin discloses implementation of thread pools to allow safe execution of thread-unaware application in a multi-threaded environment. Belkin discloses a gateway which receives a transaction and keeps a thread open only for the single transaction. Once the transaction has been fulfilled, the gateway is automatically terminated. The Examiner cites Belkin as teaching “the thread detachment performed by CGI when the request complete or client can send the service request for termination” at col. 8, lines 1-4. Applicant believes the office action has incorrectly cited that passage of Belkin, but has been unable to locate any relevant passage in Belkin. Accordingly, Belkin is not believed to teach or suggest at least that feature of claims 1 and 9.

Thus, claims 1 and 9 are patentable. Claims 2-8 depend, either directly or indirectly, from allowable claim 1, and claims 10-14 and 19 depend, either directly or indirectly, from allowable claim 9. Claims 2-8, 10-14 and 19 are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Claims 7-8 and 15-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belkin in view of U.S. Patent No. 6,611,862 to Reisman. As noted above, claims 7 and 8 depend indirectly from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole. Similarly, claims 15-18 depend indirectly from allowable claim 9 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

New claims 20 and 21 are being added to recite the invention from another aspect. Claims 20 and 21 recite a method and a system, respectively, for two-way asynchronous communication between a client and a web server. As noted above with reference to claims 1 and 9, the CGI allows continuous, two-way asynchronous communication between the client and the server. As recited in independent claim 20, maintaining such communication includes “executing operations associated with the CGI” and “repeating at least one of the operations ... until termination of the CGI by the client or the CGI.” New claim 21 includes a similar feature.

Support for new claims 20 and 21 can be found in the originally filed specification at, for example, page 6, line 11 to page 7, line 24.

None of the cited reference disclose the above-noted feature of new claims 20 and 21. For example, as noted above, Belkin discloses a gateway which receives a transaction and keeps a thread open only for the single transaction. Once the transaction has been fulfilled, the gateway is automatically terminated. Nothing in Belkin discloses "repeating at least one of the operations ... until termination of the CGI by the client or the CGI." Accordingly, new claims 20 and 21 are patentable.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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By Sanjeev K. Dhand

FOLEY & LARDNER LLP
Customer Number: 30542
Telephone: (858) 847-6715
Facsimile: (858) 792-6773

Sanjeev K. Dhand
Attorney for Applicant
Registration No. 51,182

Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing Figure 4 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet. The drawing figure 4 has been amended. Appended to this amendment is an annotated copy of the previous drawing sheet which has been marked to show changes presented in the replacement sheet of the drawing.

The specific changes which have been made to Figure 4 are the removal of the word “gateway” from block 440.

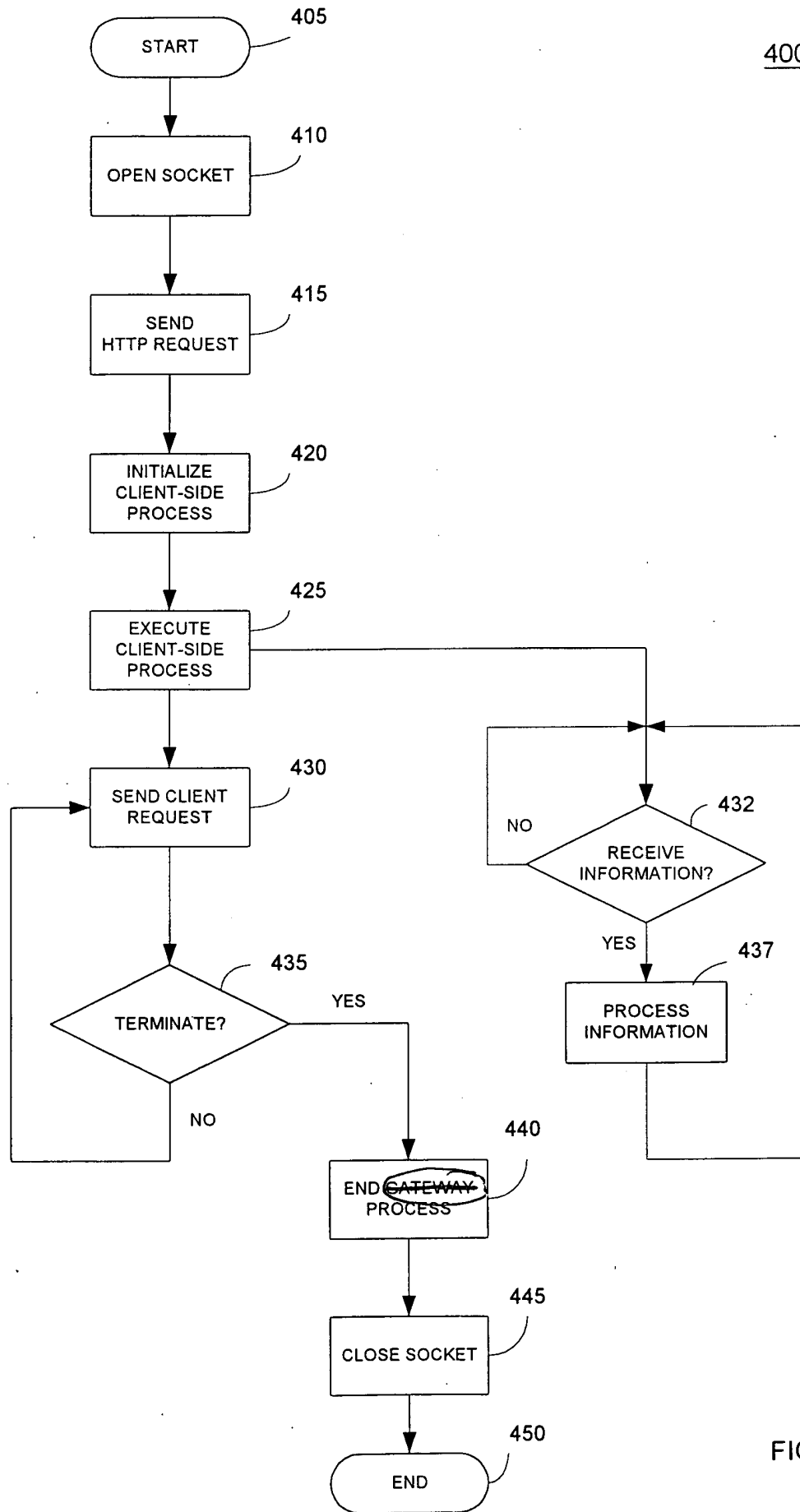
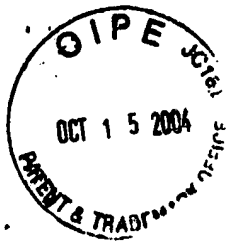


FIG. 4